



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/743,096	04/17/2001	Per Stobbe	0459-0539P	4938
2292	7590	03/07/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH			TRAN, HIEN THI	
PO BOX 747			ART UNIT	PAPER NUMBER
FALLS CHURCH, VA 22040-0747			1764	

DATE MAILED: 03/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/743,096

Applicant(s)

STOBBE ET AL.

Examiner

Hien Tran

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/15/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 1764

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Specifically, the use of the term “only” in line 11 of claim 1 raises the issue of new matter since on page 5, line 29 of the instant specification, applicant cited that the membrane is preferably positioned on the gas outlet side of the filter wall. It should be noted that any negative limitation or exclusionary proviso must have basis in the original disclosure. The mere absence of a positive recitation is not a basis for an exclusion.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it is unclear as to where the body of the claim begins. As best understood, the rejection hereinafter is based on the assumption that the body of the claim begins after “being”

Art Unit: 1764

and treated as “open language” and applicant will amend the claim to clarify the issue. Also in line 11 it is unclear as to what is intended by “only of the filter walls”.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5, 7, 10-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Kondo et al (EP 736,503).

With respect to claims 1-3, 7, Kondo et al disclose a porous filter body for filtering soot particles from diesel engine exhaust gasses, the filter body being a honeycomb wall flow filter body in which interconnected porous filter walls, each of which has a gas inlet surface and a gas outlet surface, define a multiplicity of channels 551, 552, each channel being closed at one end and neighboring channels being closed at alternate ends, the filter walls 5 being made of a material based on metallic and/or ceramic particles being bonded together, such as SiC, the porosity of the filter wall being constituted by interconnected voids defined between the metallic and/or ceramic particles, a catalytically active material 2, such as Pt, Rh, etc. for catalyzing oxidation of soot, being deposited on at least part of those surface parts of the metallic and/or ceramic particles which are exposed to the voids, and a porous membrane 1 having a smaller pore size than the porous filter wall being applied to the gas outlet side or the filter walls (col. 3, line 13 to col. 4, line 58).

Art Unit: 1764

With respect to the newly added term “only”, note that since the claim is treated as open language, it does not exclude the membrane at the inlet side.

With respect to claims 3-5, Kondo et al discloses that the filter walls are coated with a coating, such as alumina, to increase the active contact surface area of the filter walls and act as an anchor for the catalytically active coating (col. 5, lines 57-58).

With respect to claims 10-12, Kondo et al discloses that the pores of the filter walls are about 40 μm , and the porosity of the filter walls is within the range of 30-80% (col. 3, line 13 to col. 4, line 58; col.10, lines 49-50; col. 8, lines 20-21).

With respect to claim 13, Kondo et al discloses that the porous membrane has a thickness of 0.05 mm (col. 10, lines 42-43).

With respect to claims 14-15, Kondo et al discloses that the porous membrane comprises alumina powders having size of 5-10 μm (col. 5, lines 6-10, 55-58; col. 11, lines 14-17) while the pore size of the material of the filter wall is within 30-40 μm (col. 10, lines 45-50).

With respect to claim 16, Kondo et al discloses that the means pore size of the porous membrane is in the range of 10-60 μm (col. 3, lines 37-39).

Instant claims 1-5, 7, 10-16 structurally read on the apparatus of Kondo et al.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1764

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1-5, 7, 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Kondo et al (EP 736,503) in view of Kitagawa et al (4,857,089).

The apparatus of Kondo et al is substantially the same as that of the instant claim, but is silent as to whether the coating 1 is applied to the outlet side only.

However, the same comments regarding to the open language of the claims and of Kondo et al apply and therefore meet the instant claims.

In any event, Kitagawa et al discloses provision of a coating positioned on either or both sides of the filter wall.

It would have been obvious to one having ordinary skill in the art to exclude the coating at the inlet side of the filter wall in the apparatus of Kondo et al if one forgo the benefit of its presence therein, as coating only at the outlet side of the filter wall is known in the art, on the basis of its suitability for the intended use as a matter of obvious design choice, as evidenced by Kitagawa et al, and no cause for patentability here.

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over by Kondo et al (EP 736,503) alone or in view of Kitagawa et al (4,857,089) and further in view of Williamson et al (5,041,407).

Art Unit: 1764

Williamson et al discloses provision of coating the substrate with catalyst material and a washcoat including alumina, barium, etc.

It would have been obvious to one having ordinary skill in the art to provide other material, such as barium in the modified filter of Kondo et al for enhancing the catalyst performance as taught by Williamson et al.

11. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Kondo et al (EP 736,503) alone or in view of Kitagawa et al (4,857,089) and further in view of WO 89/09648.

WO 89/09648 discloses the conventionality of providing a filter made of SiC particles having size within the range of 75-170 μm and the porosity of 50-90%.

It would have been obvious to one having ordinary skill in the art to select an appropriate size for the material of the filter wall and the porosity for the filter walls, such as within the range taught by WO 89/09648 in the apparatus of Kondo et al on the basis of its suitability for the intended use as a matter of obvious design choice to obtain the desired benefits attendant thereof, absence showing any unexpected results, and since it has held that when the only difference between the prior art device and the claim was a recitation of relative size, and the device with the relative size would not perform differently than the prior art device, the claimed device was not patentable distinct.

Response to Arguments

12. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is (571) 272-1454. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Art Unit: 1764

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hien Tran

HT

Hien Tran
Primary Examiner
Art Unit 1764